Environment, Energy and Forestry

Annual Report 2009-2010

Prince Edward Island
CANADA

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Minister's Message

The Honourable Barbara Hagerman
Lieutenant Governor
Province of Prince Edward Island

May It Please Your Honour:

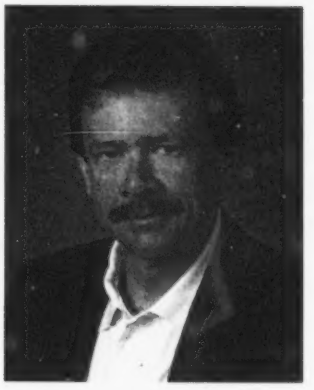
It is my privilege to present the Annual Report of the Department of Environment, Energy and Forestry for the fiscal year ended March 31, 2010.

Respectfully submitted,

Richard Brown

Richard Brown
Minister
Environment, Energy and Forestry

Deputy Minister's Message



To the Honourable Richard Brown
Minister of Environment, Energy and Forestry

Sir:

I am pleased to submit the Annual Report of the Department of Environment, Energy and Forestry for the fiscal year ended March 31, 2010. This report will focus on the achievements of the department during the period of April 1, 2009 to March 31, 2010.

I would like to recognize and thank the employees of the Department of Environment, Energy and Forestry for their dedication and commitment to delivering government's programs and services.

Respectfully submitted,

John MacQuarrie
Deputy Minister

Department Overview

Our Vision

Our vision is of an enhanced connection between Islanders and their environment. Individuals, communities, businesses and governments value our natural capital. They understand the relationship among our environment, health and economy, and this relationship is a key consideration in all decision making. Prince Edward Island is identified as Canada's "green" province – a model of sustainability.

Our Mission

Our mission is to work in close cooperation with Islanders to realize our vision.

- We help establish standards and work to ensure compliance for the protection of our natural environment.
- We lead by setting a positive example.
- We help Islanders make decisions that support the vision by publicly reporting on the state of our natural capital.

Legislative and Other Responsibilities Assigned to the Minister of Environment, Energy and Forestry

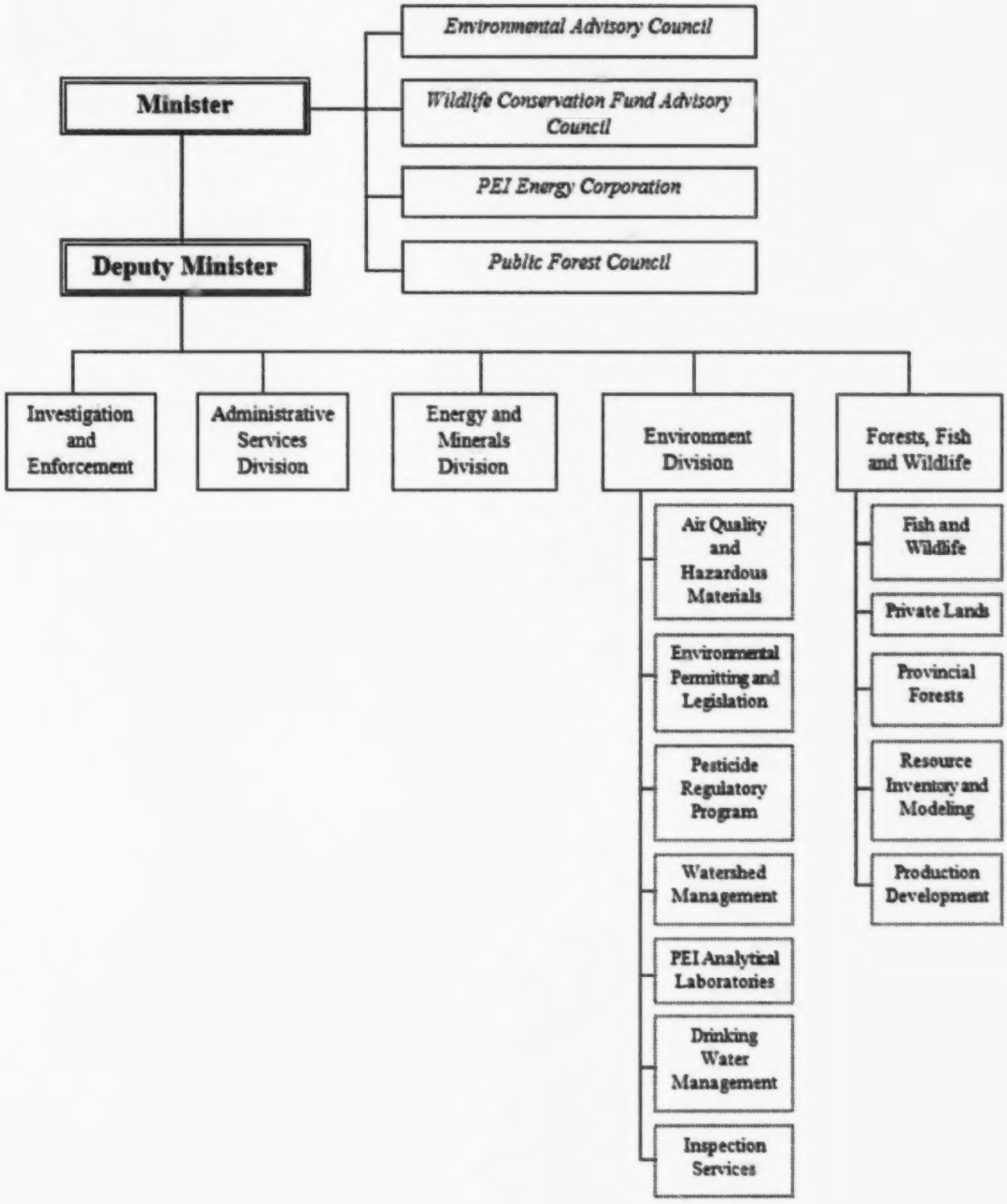
Acts/Statutes

Agricultural Crop Rotation Act
Automobile Junk Yards Act
Beverage Container Act
Energy Corporation Act
Energy Efficient Appliances Act (when proclaimed)
Environmental Protection Act
Fire Prevention Act (Part VII)
Forest Management Act
Institute of Man and Resources Act
Mineral Resources Act
Natural Areas Protection Act
Natural Gas Distribution Act (when proclaimed)
Oil and Natural Gas Act
Pesticides Control Act
Public Forest Council Act
Unsightly Property Act
Wildlife Conservation Act

Board/Agencies/Commissions

Energy Corporation
Environmental Advisory Council
Natural Areas Protection Act Technical Advisory Committee
Natural Gas Distribution Board (upon proclamation of the *Natural Gas Distribution Act)*
Public Forest Council
Species at Risk Advisory Committee
Wildlife Conservation Fund Advisory Committee

Organizational Chart



Year in Review

Department staff delivered a number of new and existing programs and services to Prince Edward Islanders. Below are highlights of the department's activities for 2009-2010.

- Consultations were held with Islanders about proposed changes to the *Pesticides Control Act* to restrict the sale and use of a number of lawn care cosmetic pesticides.

- The department invested $740,000 in watershed groups across the province. This included $120,000 for the restoration of Leard's Pond and funds for the restoration of Rackham's Pond. The department also collaborated with the newly-formed Watershed Alliance to develop a strategic plan for all watershed groups across the province to improve the protection of water quality and aquatic habitat.

- Free clinics to test nitrates levels in well water continued into 2009.

- The department registered all known private wastewater treatment plants in the province to ensure regulations and standards were being followed.

- New rules were introduced to prohibit the spreading of untreated septage on land. All septage must be processed at an approved wastewater treatment facility.

- The department partnered with Canada's wireless telecommunications industry on an initiative to encourage Islanders to recycle old cell phones. Drop off locations were set up across the province to accept cell phones for recycling at no charge.

- A new Air Quality Health Index was launched providing Islanders with accurate, up-to-date and forecasted information about air quality across the province.

- To assist homeowners and business operators improve their energy efficiency and reduce energy costs, the Office of Energy Efficiency expanded its programs for low-income households and introduced new programs to increase energy efficiency for commercial and institutional buildings.

- The department collaborated with Maritime Electric on a request for proposals for the development of 130 MW of renewable energy for domestic consumption and export.

- Changes were introduced to the environmental impact assessment (EIA) guidelines for wind energy projects: projects must include approved power transmission corridors, EIAs are required for the construction and major maintenance of transmission lines with a voltage of 69 kilovolts or higher, and public notification requirements were amended.

- The department renewed its annual agreement with the Island Nature Trust to support the organization in its work to protect valuable natural areas on Prince Edward Island.

- The department partnered with the Island Nature Trust and the Nature Conservancy of Canada to place 185 acres of environmentally important lands under the protection of the *Natural Areas Protection Act*, continuing with its commitment to designate and protect seven percent of public and private lands on Prince Edward Island.

- Several workshops were held promoting various aspects of forestry and wildlife involving hundreds of Islanders. Some of the topics covered include youth waterfowl hunting, outdoors women workshop, hunting and trapper education workshops and a forestry day to raise awareness of the importance of forests.

Bilan de l'année

Le personnel du ministère a exécuté plusieurs programmes et services nouveaux et existants pour les Insulaires. Voici les points saillants des activités du ministère en 2009-2010.

- On a mené des consultations auprès des Insulaires sur les modifications proposées à la *Pesticides Control Act* (loi sur le contrôle des pesticides) pour limiter la vente et l'utilisation de certains pesticides sur les pelouses à des fins d'esthétique.

- Le ministère a investi 740 000 $ dans les groupes responsables des bassins versants de la province, dont 120 000 $ fut consacré à la restauration des étangs Leard et Rackham. En outre, le ministère a travaillé avec la nouvelle Watershed Alliance à l'élaboration d'un plan stratégique à l'intention de tous les groupes de bassins versants de la province afin de mieux protéger la qualité de l'eau et les habitats aquatiques.

- D'autres cliniques gratuites ont été offertes en 2009 pour vérifier la teneur en nitrates dans l'eau de puits.

- Le ministère a enregistré toutes les installations privées de traitement des eaux usées connues dans la province afin d'assurer que les règlements et les normes soient suivis.

- De nouveaux règlements ont été adoptés à l'égard de l'interdiction d'épandre des boues septiques non traitées sur les sols. Toutes les boues doivent être traitées par une installation approuvée de traitement des eaux usées.

- Le ministère s'est associé à l'industrie nationale des télécommunications sans fil dans le cadre d'une initiative encourageant les Insulaires à recycler leurs vieux téléphones cellulaires. Des lieux de collecte gratuits à cet effet furent désignés un peu partout dans la province.

- Une nouvelle cote air santé fut lancée pour donner des prévisions et des renseignements justes et à jour aux Insulaires sur la qualité de l'air dans toute la province.

- Pour aider les propriétaires de maisons et d'entreprises à améliorer leur efficacité énergétique et à réduire leurs coûts en énergie, le Bureau de l'efficacité énergétique a élargi ses programmes à l'intention des ménages à faible revenu et a créé de nouveaux programmes en vue d'améliorer l'efficacité énergétique des immeubles commerciaux et institutionnels.

- Le ministère a collaboré avec Maritime Electric à une demande de propositions pour la production de 130 mégawatts d'énergie renouvelable aux fins de consommation intérieure et d'exportation.

- Des changements ont été apportés aux directives de l'étude d'impact sur l'environnement (ÉIE) quant aux projets éoliens : les projets doivent avoir des corridors de lignes électriques approuvés; les ÉIE sont obligatoires pour la construction de lignes électriques qui transmettent 69 kilovolts ou plus et pour les gros travaux qui y sont effectués; et les exigences en matière d'avis public ont été modifiées.

- Le ministère a renouvelé son entente annuelle avec la Island Nature Trust afin d'appuyer les efforts de l'organisme quant à la protection des espaces naturels importants à l'Île-du-Prince-Édouard.

- Dans le cadre de son engagement à désigner et protéger sept pour cent des terres publiques et privées à l'Î.-P.-É., le ministère s'est associé à la Island Nature Trust et à Conservation de la nature Canada pour placer 185 acres de terres importantes au plan de l'environnement sous la protection de la *Natural Areas Protection Act*.

- Avec la participation de centaines d'Insulaires, plusieurs ateliers furent organisés pour promouvoir divers aspects de la foresterie et de la faune. Parmi les ateliers donnés, il y a eu celui pour les jeunes sur la chasse au gibier d'eau; celui portant sur le plein air pour les femmes; des ateliers d'information sur la chasse et le piégeage; ainsi qu'une journée forestière pour sensibiliser les gens à l'importance des forêts.

Administrative Services Division

Mandate

The Administrative Services Division provides financial, human resource and administrative services to department personnel. The division has the overall responsibility for preparing and monitoring the department budget and providing financial analysis and advice to department management. Human resource management support for the department is provided by the division in areas such as recruitment and selection, position management, orientation, training, and planning. The Division processes financial and payroll transactions; and is responsible for various administrative services such as reception, vehicle management, telecommunications system administration, accommodation requirements, records management activities, information technology services, risk management, freedom of information and protection of privacy coordination, and occupational health and safety program planning.

Department Staff Summary

The Department of Environment, Energy and Forestry was reorganized in 2009/2010 which resulted in the following changes:

- The Pollution Prevention Division and the Water Management Division combined into one new Environment Division. This included the extension of one position from part-time to full-time, the creation of one administrative support position, and eliminating two positions.

- A number of government departments were reorganized which included the transfer of the Inspection Services Division from the former Department of Communities, Cultural Affairs and Labour to the Department of Environment, Energy and Forestry. This resulted in the transfer of 32 (27 full-time, 5 part-time) Inspections Services positions to the Environment Division.

- In the Forests, Fish and Wildlife Division, the forestry equipment supervisor position was extended from part-time to full-time.

Permanent Position Establishment (As of March 31/10)		
	Full Time	**Part Time**
Environment	76	10
Administrative Services	20	5
Energy	8	0
Forests, Fish & Wildlife	39	29
Total	**143**	**44**

In addition to the above established positions, the department employed 63 casual employees and 42 students during fiscal 2009-2010.

Department Financial Summary

2009-2010 Actual Expenditure and Revenue			
Division	Original Budget	Revised Budget	Actual Expenditure/ Revenue
EXPENDITURE BUDGET:			
Department Management	$1,244,900	$1,236,500	$1,195,142
Environment	$11,728,000	$12,071,400	$11,626,955
Administration	$604,200	$573,800	$570,647
Forests, Fish and Wildlife	$6,530,700	$6,538,000	$6,526,410
Energy & Minerals	$5,641,300	$5,563,400	$5,589,472
TOTAL	$25,749,100	$25,983,100	$25,508,626
REVENUE BUDGET:			
Department Management	0	0	$3,060
Environment	$2,276,600	$2,386,600	$2,363,312
Administration	$500	$500	$108
Forests, Fish and Wildlife	$809,600	$809,600	$625,281
Energy & Minerals	$105,000	$105,000	79,351
TOTAL	$3,191,700	$3,301,700	$3,071,112
TOTAL NET	$22,557,400	$22,681,400	$22,437,514

Based upon financial reports dated September 23, 2010.

There was one Special Warrant in the amount of $234,000. There was a contaminated site clean-up estimated to cost $124,000. The remaining $110,000 was fully off-set by revenue from the federal government under the Atlantic Regional Adaptation Collaborative.

During fiscal year 2009/2010, the Pollution Prevention and Water Management Divisions were combined to become the Environment Division. Also, the Inspection Services Section was transferred from the former Department of Communities, Cultural Affairs and Labour to become part of the Environment Division.

Freedom of Information and Protection of Privacy Act

The department received 13 new Access to Information requests under the *Freedom of Information and Protection of Privacy Act* between April 1, 2009 and March 31, 2010. In addition, there was one previously received request that was still open as of April 1, 2009. Thus, there were a total of 14 requests that were active during fiscal 2009-2010. Of these 14 active requests, nine were closed prior to March 31, 2010 and five remained open (including four under appeal).

Access to Information Request Summary from April 1, 2009 to March 31, 2010.	
Open requests as of April 1, 2009 (including requests under appeal)	1
New requests received between April 1, 2009 and March 31, 2010	13
Total active requests between April 1, 2009 and March 31, 2010	14
Active requests that were closed between April 1, 2009 and March 31, 2010	9
Open requests as of March 31, 2010 (including four requests under appeal)	5

Investigation and Enforcement

The number of Conservation Officers in the field this past year included seven full-time officers, the Chief Conservation Officer, three officers in Prince County, one officer in Queens County, and two officers in Kings County. There was also one seasonal Conservation Officer. The section had three part-time pesticide inspectors. The officers' primary duties are to insure compliance of environmental legislation. A high percentage of the infractions are a direct result of complaints from the public.

The Investigation and Enforcement Section is responsible for enforcing the following acts and regulations pertaining to the environment, fish and wildlife, and pesticides:

- *Automobile Junk Yards Act*
- *Environmental Protection Act*
- *Highway Traffic Act*
- *Natural Areas Protection Act*
- *Off-highway Vehicle Act*
- *Pesticides Control Act*
- *Planning Act*
- *Recreational Development Act*
- *Trail Act*
- *Unsightly Property Act*
- *Wildlife Conservation Act*
- *Forest Management Act*
- *Beverage Container Act*
- *Agricultural Crop Rotation Act*
- *Roads Act*

As well, through formal and informal agreements with Environment Canada, Fisheries and Oceans and the Royal Canadian Mounted Police, the province enforces the following federal acts and regulations related to pollution prevention and wildlife protection:

- Trespass to Property Act, related to hunting and fishing.
- Fisheries Act (CANADA), related to sport fishing and habitat destruction.
- Migratory Birds Convention Act (CANADA), related to the protection of migratory birds.
- Wild Animal / Plant Protection and Regulation of International and Interprovincial Trade Act, related to the illegal trade and harvesting of wildlife.
- Small Vessel Regulations, related to boat safety.
- Criminal Code (CANADA), related to firearms offences and other criminal offences that an officer may come across in the field.
- Specimen at Risk Act, related to endangered piping plover.

The following table illustrates the violations and warnings recorded in the period of April 1, 2009 to March 31, 2010. There were a total of 313 violations across the province.

Statute	Charges	Warnings
Agricultural Crop Rotation Act	1	0
Canada Shipping Act	1	0
Environmental Protection Act	64	68
Fire Prevention Act	1	0
Fisheries Act	9	10
Highway Traffic Act	1	1
Migratory Bird Convention Act	3	1
Off Highway Vehicle Act	25	30
Pesticide Control Act	10	30
Roads Act	0	1
Trails Act	5	0
Trespass To Property Act	5	0
Unsightly Property Act	1	0
Wildlife Conservation Act	19	27

Environment Division

Mandate

The Environment Division has a mandate to promote the protection of public health and safety of Islanders and is responsible for the stewardship of our environment and natural resources. This includes responsibility for the quality of our air, water, land and natural habitat; assessing the impact of undertakings on human health, wildlife and the environment including climate change; and the management of subdivision development and building activities in the province. Activities which help promote public acceptance of responsibility for the environment and sustainability of our natural resources are included in this mandate.

Division Overview

The Environment Division consists of seven sections: Drinking Water Protection, Watershed Management, Prince Edward Island Analytical Laboratories, Climate Change, Air and Hazardous Materials, Environmental Assessment and Land Management and Inspection Services.

The main responsibility of the Drinking Water Protection section is to ensure sustainable management, protection and enhancement of drinking water and wastewater systems. The key program areas include:

- Drinking water quality monitoring programs
- Central water and wastewater
- Licensing programs for contractors/system operators
- Municipal Wastewater Effluent Strategy

The Watershed Management section is responsible for the management of groundwater, inland surface waters, and coastal estuaries. The watershed is a principal land management unit. The specific program areas for the section include:

- Groundwater quantity assessments
- Watershed management
- Water quality and quantity programs
- Publication of groundwater and surface water quality and quantity information
- Development of educational materials
- Public education and information sessions

The Prince Edward Island Analytical Laboratories is responsible for the management of the province's water microbiological and water chemistry laboratories. As a result of the co-operative arrangement between the Department of Agriculture and the Department of Environment, Energy and Forestry, a single Lab Manager is responsible for the day-to-day activities of the labs under the PEI Analytical Laboratories. The lab is accredited by the Standards Council of Canada. The program areas include:

- Drinking water quality analyses
- General water quality analyses for ground and surface waters to determine the health of water for interests including aquatic habitat, the fishery, recreation, and aesthetics
- Wastewater programs

The Climate Change section is responsible for the development and implementation of provincial strategies to reduce greenhouse gas emissions and prepare for climate change. The section is also responsible for coordinating and participating in climate change activities throughout the province, monitoring compliance with provincial commitments (including the New England Governors and Eastern Canadian Premiers Climate Change Action Plan), and representing the province on national and regional committees. Program areas include:

- Atlantic Regional Adaption Collaborative (RAC)
- National/Provincial programs- Greenhouse Gas Emissions

- Renewable energy and energy efficiency initiatives
- Centre for Climate Change Strategies

Air and Hazardous Materials section administers a wide range of programs, legislation and activities which include measures to preserve, control or enhance: outdoor air quality, the ozone layer, management of hazardous waste. This section also responsible for the management, administration and licensing associated with the storage and application of pesticide products.

- Pesticides program management including vendor and applicator licensing
- Ozone Layer Protection Programs
- Air Quality Health Index Management
- National Air Pollution Surveillance Program
- Environmental Records Review Regulations
- Home Heat Tank Regulations
- Petroleum Hydrocarbon Remediation Regulations

The Environmental Assessment and Land Management section was created in the fall of 2009 after realignment within the department. The new alignment will focus development and processing of all new legislation and regulations for the Department in one section. The section also manages and administers a wide variety of environmental activities from unsightly properties to materials recycling and includes the coordination of environmental impact assessment activities. The program areas include:

- Environmental impact assessments
- Unsightly property assessment/investigations
- Construction & demolition activities
- Excavation Pits activities
- Environmental Legislation and regulation development

Inspection services section was a new addition to the Division in January 2010. With the inclusion of Inspection services activities under in the Environment Division, the public will see one-stop assessment and approval activities associated with land development and building. This section's principle activities include:

- Administration and Customer Services
- Boilers, Pressure Vessels and Plumbing Unit
- Building, Development Unit
- On-site wells and sewage disposal systems
- Electrical Unit
- Elevator and Amusement Device Unit
- Subdivision development and approval

Drinking Water Protection Section

The Drinking Water Protection section continued with implementation of regulations governing the operation of central water supply and wastewater treatment systems as they apply to privately operated systems. The regulations prescribe requirements for system classification, operator certification, monitoring, system operations and public reporting requirements. All municipal systems are now registered and are operating with certified operators. Private systems are now the focus with much time being devoted to registration and operator education. The Drinking Water Protection section is also responsible for the approval of high capacity wells in the Province. During fiscal 2009/2010, a total of nine Groundwater Exploration Permits and five Groundwater Extraction Permits were issued, down significantly from the previous few years.

The Drinking Water Protection section continued to investigate water quality problems primarily for private wells, although some problems with small privately-owned central water supplies were addressed.

The Drinking Water Protection section is also responsible for the approval for the design, construction, operation and maintenance of all water supply and wastewater systems. In fiscal 2009-10, 57 Certificates of Approval were issued, with the value of work at approximately $15.4 million. With the extension of Drinking Water

and Wastewater Facility Operating Regulations to privately operated systems, there has been an increase in demand for certified system operators. The section continued to be involved in educational development and certification of water and wastewater system operators. Six exam sessions were held with a total of 41 candidates. There are currently approximately 88 certified operators in the province.

The section continues to provide technical support representing provincial/federal government interests in many major projects dealing with central sewer and water expansions throughout the province. In addition, much staff time over the year has been spent dealing with the province's Municipal Wastewater Strategy. This strategy, developed over many years, was signed in February 2009 by the Canada Council of the Minister's of the Environment (CCME). The two principle outcomes of the strategy are aimed at the protection of public health and the environment.

Complementing the CCME wastewater work, the CCME struck a national bio-solids task group to review and develop national criteria for the production and management of bio-solids from wastewater treatment systems. This work is ongoing.

The section also collaborates with various partners on research on various topics of importance related to drinking water. The section continued to assist with the pesticide monitoring program and results of this work have been similar to previous surveys with detections being rare and where there have been detections, concentrations have been low compared to health guidance values. Staff also continued collaborative research using new geochemical techniques to learn more about the behavior of different nitrogen species in groundwater. This was done in conjunction with researchers from the Geological Survey of Canada and the logistical support of staff of Agriculture and Agri-food Canada.

Watershed Management Section

The Watershed Management section administers the Watershed Management Fund (WMF) that provides technical and financial assistance to community watershed organizations who are working on watershed restoration and/or watershed planning. In 2009, 27 watershed groups were funded through this watershed management initiative awarding a total of $737,000 to community groups. The funding increase of 626% over 2006 levels is a direct result of recommendations of the public consultations on watersheds undertaken by the Environmental Advisory Council in 2007 and the report from the Commission on Nitrates in Groundwater in 2008.

Priority funding areas continue to include watershed plan preparation, facilitation and strategic planning, and building capacity of watershed organizations. Six community based watershed management plans have been developed and another 18 were in progress. Stream enhancement, fish passage restoration, riparian and upland tree planting, wetland enhancement and watershed group newsletters were also carried out by many watershed organizations.

Long-term water quality monitoring was continued on groundwater, fresh water and estuary sites as part of the Canada-PEI Water Quality Agreement. The other programs monitor estuaries and streams across the Island for receiving water quality and freshwater loading. In addition, over 100 groundwater locations, three rivers and several fish and shellfish collections were monitored for pesticides. The section also provides extensive estuarine monitoring results to Environment Canada that is utilized in the classification of shellfish growing areas.

The section continues to operate electronic monitoring sites for groundwater level, stream water level and water quality parameters.

The network now includes 19 groundwater monitoring sites, 11 surface water monitoring sites, and one surface water quality/quantity site, for a total of 31 sites.

Web based data reporting is a strong component of the section's outreach to the Island public. A groundwater quality reporting web based mapping application allows the public to determine groundwater quality in the area where they live. Surface water results for is available in a mapping application with daily updates. Groundwater level information was available real time for 13 stations. Stream water level data collected from 11 stream gauging sites can be viewed to determine whether there is sufficient water in the stream to use for irrigation purposes.

The Regional Technical Advisory Group (RTAG) of four maritime scientists and section support assistance continued to make progress on interim watershed nutrient loading targets for estuaries across PEI. The goal is to develop targets for all PEI watersheds. The targets will have important consequences for remedial watershed work on nitrate to restore estuarine water quality.

The section's hydrogeological modeling work concentrated on enhancing modeling of nitrate leaching losses from crop land. This work was presented at a major international groundwater conference to get feedback on the methodologies. The modeling work continued to assess watershed scale water flow and nitrate issues.

Alternative Land Use Services Program

In 2008, the P.E.I. Government implemented a province-wide Alternative Land Use Services (ALUS) Program, an ecological goods and services initiative to achieve environmental improvements above and beyond those required by regulation. The ALUS program financially rewards farmers and landowners for retiring small areas of private agricultural land for environmental purposes.

The goals of the ALUS program are to reduce soil erosion and siltation of watercourses and wetlands; improve water quality; improve and increase wildlife habitat; and reduce the impacts of climate change.

The program has a one million dollar annual budget and is co-managed by the Department of Environment, Energy and Forestry and the Department of Agriculture. During fiscal 2009-2010, there were 220 applications received. Expenditures for farmers and landowners during the same time were approximately $575,000.

Air And Hazardous Materials Section

Petroleum Storage Tank Program
The department continued to lead the country in preventive efforts to avoid petroleum spills, and in using the most up-to-date science to determine the necessary corrective action when petroleum spills do occur. In 2009, there were 8 underground storage tank spills compared to 167 in 1992 (when the program became fully active), and 139 aboveground home heat tank spills (40 of five litres or less) compared to 293, 162, 191, 179, 146, 132, 148, and 156 spills in 2001, 2002, 2003, 2004, 2005, 2006, 2007, and 2008.

In 2009 the Home Heat Tank Program continued its focus on educating the public about potential environmental and groundwater contamination associated with spills from small capacity fuel oil storage tanks. By December 31, 2009, 48,174 home heat tank systems had been inspected, tagged and registered with the department.

National Air Pollution Surveillance (NAPS) Program
Ambient air samples collected at Charlottetown, Wellington and Southampton NAPS stations provide information to the province, Environment Canada and the U.S. Environmental Protection Agency on ground level ozone, sulphur dioxide, nitrogen oxides, mercury, particulate matter and acid rain levels found in the local air.

On May 6, 2009, a new Air Quality Health Index (AQHI) was launched to provide Islanders with accurate, up-to-date and forecasted information about air quality across the province. The AQHI is a joint effort of the provincial government (Environment, Energy and Forestry; Health and Wellness/Chief Health Office), Environment Canada, Health Canada and the PEI Lung Association. The Index, calculated for each of the three sites, communicates the health risks of pollutants in the air we breathe and provides health advice for people at risk as well as the general public. It is available on the PEI Government website, the Environment Canada website and on television at the Weather Network, Charlottetown forecast.

Mercury and Fish

Fish tissue sampling for mercury, ongoing since 1998, continued. For the first time, in April of 2005, it was necessary to issue a mercury fish advisory for Prince Edward Island. The Health Canada maximum allowable limit of 0.50 mg/kg, was exceeded in samples taken from O'Keefe Lake. Samples collected in July 2005 and January 2006 from this lake were also in excess of the guideline. The average 2009 mercury level in O'Keefe Lake fish (20 samples) was 0.76 mg/kg.

Other Activities

In 2009, 3,629 inspections of refrigeration/air-conditioning equipment at landfills were carried out, 409 kg of ozone depleting substances recovered from this equipment, 295 oil spills investigated, 14 underground petroleum storage tanks removed, 805 records review requests (to identify past/current property contamination issues) conducted, 2,202,315 kg of hazardous waste shipped from the province for disposal/recycling, and 109 after-hours calls received by the Environmental Emergency Response Team.

Climate Change Section

Climate Change staff develop and monitor progress on provincial climate change strategies, coordinate and participate in climate change activities throughout the province, monitor compliance with provincial commitments (including the New England Governors and Eastern Canadian Premiers Climate Change Action Plan), and represent the province on national and regional committees.

Climate Change Strategy

Prince Edward Island and Climate Change - A Strategy for Reducing the Impacts of Global Warming was released in November 2008. The strategy includes 47 action items that strive to reduce greenhouse gas emissions, enhance carbon sinks and prepare for climate change.

Several action items were completed in 2009 – 2010, while progress on others is ongoing. A digital elevation model (DEM) of Prince Edward Island was completed, which enables the Department to better assess impacts of sea level rise. New Foundations – Report of the Commission on Land Use and Local Governance was released and recommended a review of current land use and development policies. Climate change will be considered during the review. Energy efficient guidelines for the purchase of government vehicles were incorporated into Treasury Board Policy and Procedures Manual. Alternative Land Use Services (ALUS) program began providing incentives to enhance carbon sinks through tree planting and grassed headlands.

Greenhouse Gas Emissions

Greenhouse gas emissions were down in 2008 (the most recent information available). Emissions in 2008 were just below 1990 levels. In recent years (2004-2008), emissions have declined in the residential and commercial building sectors (19%), manufacturing (38%), off road transportation (15%) and agriculture (21%). Emissions from electricity have declined significantly due to provincial wind farm development and enhanced connectivity with NB.

Regional Adaptation Collaborative (RAC)
The Government of Canada and the Atlantic Provinces partnered to deliver the Regional Adaptation Collaborative (RAC) Program. The Atlantic Provinces signed a contribution agreement in February 2010 with the Government of Canada to fund projects related to coastal and inland land use risk and vulnerability, infrastructure design and managing groundwater resources.

Climate Change Networking Session
The Department hosted a Climate Change Networking Session, with 14 speakers from Prince Edward Island and Atlantic Canada. Experts talked about the science of climate change, research being conducted on climate change on PEI, community planning methods, industry and institutional activities, climate change in the school curriculum, impact on forests and marine species, emergency planning, aboriginal climate change issues, infrastructure risk analysis and efforts to reduce greenhouse gas emissions.

Environmental Assessment And Land Management

The Environmental Assessment and Land Management section oversees a wide variety of environmental legislation including undertakings as defined under section 9 of the *Environmental Protection Act*, administration of the Waste Resource Management Regulations, the Excavation Pits Regulations, the *Unsightly Property Act*, the *Automobile Junkyard Act*, Materials Recycling Regulations, and the *Litter Control Act*.

Environmental Assessment
The Environmental Assessment Group coordinates the subdivision environmental review process for provincial and municipal authorities and becomes aware of potential undertakings either through referrals from other government departments or through direct application by a proponent. In 2009/2010, a total of ten undertakings were approved by the Environmental Assessment section. Projects included a 200 kV transmission line, Irving Oil Pipeline, etc.

Interdepartmental Approvals
Each year, the Department examines and assesses a large number of referrals from the Inspection Services section of the Department. These referrals can include sand and salt storage facilities, sewage lagoons, correctional facilities, summer camps and temporary camp-sites, multiple-unit developments (cottages, apartments, seniors' complexes), etc. From May 1, 2009 to April 30, 2010, a total of 173 Interdepartmental approvals were processed by the EA section. The section also carries out reviews of various proposed subdivisions from across the province. From May 1, 2009 to April 30, 2010, a total of 87 Subdivision Applications were reviewed.

Excavation Pits, Recycling Plants, C&D Sites, Automobile Junk Yards, Unsightly Properties, and Special Waste
The inspection and permitting of waste management and recycling facilities, excavation pits, and automobile junk yards are also important functions of the Environmental Assessment and Land Management section. Ensuring that these types of facilities are operating in compliance with their respective legislation is particularly important for the protection of groundwater and surface water resources.

In 2009/2010, a total of two composting facilities, 49 recycling facilities, one landfill facility, five construction and demolition debris sites, 204 licensed pits, 48 automobile junk yards were permitted to operate by the department. A new responsibility of the Environmental Assessment and Land Management section is the issuance of special waste permits for disposal of hazardous materials. In 2009/10 approximately 160 permits (excludes petroleum contaminated soils) were issued.

Environment Officers of the Environmental Assessment and Land Management section also carried out numerous inspections of properties under the *Unsightly Property Act* in 2009/2010. Many of these properties required repeated visits and/or follow-up inspections in an effort to have problem areas addressed.

Watercourse/Wetland/Buffer Zone Permitting Program

In the late fall of 2008, a significant redesign of protection for watercourse, wetlands and buffer zones resulted in the implementation of the new Watercourse and Wetland Protection Regulations. The new regulations feature a single 15 m buffer zone expanded to cover all watercourses and wetlands. The program is very busy as staff respond to large numbers of inquiries and complaints throughout the year, and in 2010 will issue approximately 970 permits.

Pesticide Regulatory Program

The Pesticide Regulatory Program maintains responsibility for administration of the *Pesticides Control Act* and regulations. This includes the review and update of legislation, licensing of commercial pesticide applicator and vendor businesses, certification of private pesticide applicators, and the issue of pesticide application permits.

Legislation
New *Pesticides Control Act* regulations, designed to safeguard human health and protect the natural environment of the province, were approved by Executive Council in late December 2005. These regulations require the licensing of pesticide vendor and applicator businesses; instate mandatory certification of private and commercial applicators, as well as vendor sales personnel; introduce new loader/mixer and applicator categories; institute maximum allowable wind speeds for the application of pesticides; and establish restrictions on the transport and storage of pesticides.

On December 1, 2009, the Government of Prince Edward Island announced its intention to implement changes as to how cosmetic pesticides would be managed in this Province, which included the sale and use of many domestic (Home and Garden) products. This initiative promotes consumer safety by reducing the potential for misuse or overuse of these pesticides. The program came into effect on April 1, 2010.

The new legislation did not affect the use of pesticides for agricultural or forestry purposes.

Licencing and Certification
The numbers of Pesticide Applicator Business Licenses held in 2010 are as follows: Agricultural (2), Landscape (6), Structural (6), Biting Fly Control (2), Structural Fumigation (2), and Seed/ Seed-piece Treatment (6).

Across the Province, twenty-four (24) vendor companies held a Non-domestic Pesticide Vendor Business License. Additionally, thirteen (13) Domestic Pesticide Vendor Business Licenses were issued.

Training sessions were offered for a number of applicator certification categories, specifically Class D (seed treatment), Loader/Mixer, and Class I (Herbicide application by use of a wiper, brush, or roller). At present, over 2,700 people hold a private pesticide applicator certificate. Training was also provided for individuals seeking a Domestic Pesticide Vendor Certificate.

Inspection Services Section

The Inspection Services section is responsible for the provision of a co-ordinated and integrated delivery of regulations and codes aimed at protecting public health, safety and the natural environment. The subject areas involved include: land use regulations pertinent to subdivision and development, Acts and Regulations for the adoption of the Canadian Electrical Code,

Canadian Elevator Safety Code, Amusement Device Codes, the National Plumbing Code, the American Society of Mechanical Engineers, (ASME) codes for boiler and pressure vessels safety and building standards for barrier-free design (National Building Code Canada).

In licenses, applications, permits and inspection fees, the section brought in a total of $1,066,962 in revenue in the report year 2009-2010.

In addition, both internal and external reviews of a pilot program for a new approach to the approval of on-site sewage disposal systems were conducted. The pilot program involved the training of licensed sewage disposal contractors in site suitability assessments, allowing them to register site suitability assessments and proposed system designs without the need to apply for the traditional sewage disposal permits.

The intent of the new process was to streamline the approval process, and build more technical capacity within the industry. The program was deemed a success and the approval process for on-site sewage disposal systems has now been adapted to implement the procedures piloted over the previous two years. While the previous process of applying for permits is still available to contractors, during the fiscal 2009-20010 construction season, nearly 66 percent of septic systems installed were approved under the new "registered document" process.

In an effort to provide continuing educational opportunities to the industry, meetings were held at various locations across the province, and the section also facilitated the offering of a training course for site assessors /septic contractors by Holland College. Staff were also increasingly involved with such activities as soils assessments for on-site sewage disposal suitability and investigating and provision of advice on remedies for failed septic systems.
The staffing framework of the Inspection Services section consists of a Manager of Inspection Services, Manager of Administration and Customer Services, three Chief Officers, two Senior Subdivision Officers and 25 technical and regulatory personnel. The section delivers its programs and services through the following operational work units:

- Administration and Customer Services
- Boilers, Pressure Vessels and Plumbing Unit
- Building, Development and Subdivision Unit
- Electrical Unit
- Elevator and Amusement Device Unit

Administration and Customer Services

The Administration and Customer Services section is a front line, easy access, service delivery operation located in the J. Elmer Blanchard Building at 31 Gordon Drive in Charlottetown.

Staff includes a manager and six safety standards' technicians who provide a broad range of services to contractors in the building, electrical, plumbing, boiler, elevator, and amusement ride inspection areas as well as to land surveyors and the general public.

This work unit is responsible for all data collection, information processing and distribution of applications, permits and licenses required to meet minimum safety standards. Staff meet with clients and provide information and guidance in the regulatory requirements and complexities of preparing applications and other pertinent documentation necessary for the direct delivery and administration of the diverse Divisional programs. Traffic flow and client contact peaks during the spring, summer and fall months of the year.

Staff is responsible for financial and administrative transactions including the collection and handling of all revenue as well as the management of files and records for Inspection Services. In addition, through extended hours of operation, service is available to the public at 8:00am year round. Cross training of staff is on-going and continues to reap benefits through the realization of efficiency and excellence in client service delivery.

Boiler, Pressure Vessel and Plumbing Unit
This unit, staffed by a Chief Inspector and six inspectors, administers the *Boilers and Pressure Vessels Act* and Regulations, as well as the *Power Engineers Act* and Regulations. The primary objective is to ensure the protection of life and property where boilers, pressure vessels and liquified petroleum gas are being used. Services are provided out of the Charlottetown office and Access PEI sites in Summerside and Montague.

Public health and safety is also protected through administration of the *Environmental Protection Act*, Code for Plumbing Services Regulations which adopts the Canadian Plumbing Code, and the Sewage Disposal Regulations. Three inspectors carry out final installation inspections of on-site sewage disposal systems. The exceptions are those handled by Property Development Officers in Access PEI sites in Kings County and O'Leary area.
The unit also provides the following services on an ongoing basis:

- design review and registration for boilers, pressure vessels, pressure piping and fittings;
- testing, inspection, and issue of certificates for boilers and pressure vessels;
- review and registration of welding procedures, and qualification testing of welders and brazers;
- registering quality control manuals and licensing mechanical contractors;
- approval and registration of plans for L.P. Gas systems, random inspection of consumer sites, plants and vehicles, and the issuance of repair orders;
- examination, certification and licensing of personnel involved in handling propane gas including fabrication, installation, and repair;
- examination, certification and licensing of power engineers and registration of power plan;
- review and issue of plumbing permits, inspections and testing of plumbing systems;
- inspection of on-site sewage disposal system installations.

The following table outlines the activities undertaken by this unit during fiscal 2009 – 2010.

Design Registration:	Boilers, Pressure Vessels, Pressure Piping, and Fittings	623
Inspection and Investigation:	Boilers and Pressure Vessels	3235
LP Gas Bulk Trucks, Plants, Consumer Sites, Pressure Tests and Reinspection		291
LP Gas Permits Issued		169
Accidents		0
Injuries Fatalities		0
Potential Hazards Boilers & Pressure Vessels and LP Gas		462
LP GAS Certified Personnel:	Bulk Plant Operator, Dispenser Operator, Tank Truck Operator, Domestic Gas Fitter, Cargo Line Operator and Industrial Gas Fitter	310
LP Gas Examinations Conducted		50
Licensed Power Engineers:	First, Second, Third and Fourth Class	226
Refrigeration License Class A and B		30
Power Engineers Examinations Conducted		95
Registered Plants Requiring Licensed Power Engineers		24
Registered Welding / Brazing Procedures		296
Welders / Brazers certified		92
Registered Mechanical Contractors		123
Plumbing Permit Activity:	Plumbing Permits Issued	876

Fees Collected - Boiler, Pressure Vessel and Plumbing Unit

Federal Boiler Inspection Fees $67,488
Provincial Boiler Inspection Fees $194,687
Power Engineer and Propane Fees $55,969
Plumbing Permit Fees $102,594
Total Revenue $420,738

Building, Development and Subdivision Unit
This unit is staffed by a Chief Officer, two Senior Subdivision Officers, five Property Development Officers and three part-time Development Officers. The unit administers the *Planning Act* and Regulations, *Roads Act* Highway Access Regulations, *Building Code Act* Barrier Free Design Regulations and the *Environmental Protection Act* Sewage Disposal Regulations. These regulations provide minimum requirements for building and development, on-site sewage disposal, highway access, barrier free design and the subdivision of land.

The Property Development Officers administer the regulations from headquarters in Charlottetown and from Access PEI centres in Montague, Summerside, O'Leary and Souris. They assist clients through the development approval process including consultation, site planning, site assessment and compliance with the regulations.

The unit also administers and enforces the *Environmental Protection Act* Sewage Disposal Regulations.

Development, Septic and Highway Access
In fiscal 2009-2010, a total of 1,398 permits were approved for development, septic systems and access to arterial and seasonal highways. Of the total, permits were approved for 808 structures, 585 septic systems and 5 entrance ways. Development permit approvals increased 3.1 percent compared to 2008-2009. There was a 27 percent decrease in permits issued for new residential dwelling units, while summer cottages saw an increase of 17 percent. There was a 13 percent decrease in septic permits issued and septic registered documents received over the previous report year.

The following table shows permits issued and application fees received for building and sewage in the three regions served.

Permits and Fees 2009 - 2010

	Permits Issued		**Fees Collected**	
Location (Region)	Development Permits	Septic Permits/ Registered Doc	Development Fees	Septic Fees
Montague /Souris	169	136	total fees all regions $130,350	total fees all regions for Septic permits and site assessments $64,245
Charlottetown	361	302		
Summerside	191	136		
O'Leary	87	11		
Totals	808	585	$130,350	$64,245
Totals All Areas	**1391**		**$194,595**	

Septic Permits and Septic Registered Documents by Region

Region	Septic Permits Issued	Registered Documents Received	Totals
Montague / Souris	9	127	136
Charlottetown	99	203	302
Summerside	46	90	136
O'Leary	9	2	11
Totals	**163**	**422**	**585**

The following table shows a breakdown of the types of septic permits issued in the report year.

Septic Permits and Registered Documents Received by Type				
Location (Region)	**New Septic System**	**Replacement System**	**Upgrade / Repair**	**New Tank Only**
Montague/Souris	94	32	0	8
Charlottetown	234	36	4	30
Summerside	100	31	1	4
O'Leary	2	6	0	3
Totals	**430**	**105**	**5**	**45**

The following table shows a breakdown in the percentages of development permits issued for various uses by region. The miscellaneous permits include other structures not listed in the permit type.

Development Permits By Use						
Permit Type	**Ch'town**	**Montague/ Souris**	**Summerside**	**O'Leary**	**# of Permits**	**%**
Residential	122	41	58	29	250	31
Mobile Homes	9	2	4	0	15	1.9
Summer Cottages	46	38	35	4	123	15.2
Rental Cottages	4	0	1	0	5	0.6
Industrial / Commercial	4	5	5	4	18	2.2
Commercial Storage	2	2	1	0	5	0.6
Private Garage / Storage	96	22	39	12	169	20.9
Agricultural Development	9	5	13	6	33	4.1
Building Additions	49	37	21	25	132	16.3
Miscellaneous	20	17	14	7	58	7.2
Totals	361	169	191	87	808	100

The following table shows Development Permits issued by region for new single family dwellings and summer cottages from fiscal years 2004 – 2010.

	2004 -2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-2010	
Location (Region)	sfd	sum	sfd	sum	sfd	sum	sfd	sum	sfd	sum	sfd	sum
Montague / Souris	64	49	39	41	34	26	33	22	37	15	41	38
Charlottetown	164	77	105	53	111	72	121	56	141	49	122	46
Summerside	58	83	50	55	46	57	58	57	61	28	35	35
O'Leary	50	13	41	16	32	19	23	17	38	10	4	4
Totals	**336**	**222**	**235**	**165**	**223**	**174**	**235**	**152**	**277**	**102**	**202**	**123**

Subdivisions

During fiscal 2009-2010, a total of 686 applications were received and filed for subdivisions. Application fees received in the report year amounted to $76,470. Final approval was granted for 338 subdivisions containing a total of 380 lots. This represented a 53 % decrease in the total number of lots approved from the previous fiscal year. Single-family dwelling lots and summer cottage lots were impacted by the decrease.

Lots approved for single family dwellings were down by 30%, while lots for summer cottages were down by 80%.

The following table shows, by region, the number of subdivision applications (App), subdivision approvals and applications for site assessments, applications cancelled, denied and pending.

Location	Sub App	Applications Approved	Site Assess	Cancelled App	Denied App	Pending App	Approvals Pending
Montague / Souris	153	75	35	3	1	55	7
Charlottetown	279	161	53	10	2	45	12
Summerside	157	62	31	5	0	54	10
O'Leary	97	40	19	1	0	26	4
Total	**686**	**338**	**138**	**19**	**3**	**180**	**33**

The following table shows the location and the use of lots created through subdivision approvals.

Lots Created Through Subdivision Approval						
Location	Single Family	Summer Cottage	Industrial Commercial	Agriculture	Misc.	Total
Montague / Souris	37	14	1	5	9	66
Charlottetown	149	34	10	8	18	219
Summerside	44	11	1	7	6	69
O'Leary	20	0	2	0	4	26
Totals	**250**	**59**	**14**	**20**	**37**	**380**

The following table shows lot approvals for single-family dwellings and summer cottages from fiscal years 2004 – 2010.

	2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-2010	
Location (Region)	sfd	sum	sfd	sum	sfd	sum	sfd	sum	sfd	sum	sfd	sum
Montague / Souris	88	103	91	124	93	110	110	81	47	40	37	14
Charlottetown	219	243	352	133	180	241	132	95	226	160	149	34
Summerside	95	129	138	90	97	175	68	36	53	87	44	11
O'Leary	48	8	63	7	42	27	13	14	33	3	20	0
Totals	450	483	644	354	412	553	323	226	359	290	250	59

Electrical Unit

The staff in this unit are responsible for the administration and enforcement of the *Electrical Inspection Act* and Regulations and the *Lightning Rod Act*. Regulations under the *Electrical Inspection Act* govern the licensing of Electrical Contractors and adoption of the Canadian Electrical Code application to electrical construction wiring and electrical products. Through the adoption of the Canadian Electrical Code and Regulations, the Province established minimum safety requirements for the installation and maintenance of electrical equipment. The section is staffed by three full time electrical inspectors and one part time senior electrical inspectors. They provide service in all the regional areas of PEI. One of the electrical inspectors is also responsible for the administration and enforcement of the Amusement Devices Regulations. Staff in this section are also trained to complete fire investigations for electrical.

The following table shows the activities undertaken by this unit during the report year.

Electrical Permits, Inspections, Licenses 2009 -2010

Electrical Installation Permits Issued	2851
Power Connection Permits Issued	1855
Electrical Contractors Licensed	210
Special Electricians Licensed	17
Restricted Contractors	23
Restricted Technicians	10
Licensed Lightening Rod Firms	2

Fees

Electrical Unit Fees Collected $275,531

Elevator and Amusement Device Unit

This unit is staffed by a Chief Officer and an Elevator Inspector. The unit is responsible for the administration and enforcement of the *Elevators and Lifts Act* and Regulations and the *Amusement Devices Act* and Regulations. The regulations under the *Elevators and Lifts Act* adopt the CSA Safety Code for Elevators which provides for public safety in the operation of elevators and lifts.

The unit also administers the *Amusement Devices Act* and Regulations which came into force in 2002. The Act and Regulations govern the operation of amusement devices to minimize the probability of accidents and injuries for users of such devices.

The following table shows the activities undertaken by this unit during the report year.

Elevator Certificates, Inspections, Licenses 2009 -2010

Annual Elevator Inspections	544
New Elevator Installations	23
Contractor Licenses	9
Installer Licenses	39
Amusement Device Inspections	80

Fees

Elevator Fees Collected $92,411
Amusement Device Fees Collected.....$6,155
Total Fees Collected $98,566

Energy and Minerals Division

Mandate

The Energy and Minerals Division is responsible for the implementation and administration of energy policies and programs within the Department of Environment, Energy and Forestry. Since January 2008, this has included the activities of the Office of Energy Efficiency. The division is also responsible for the promotion and administration of the Province's hydrocarbon and mineral resources. Lending administrative and technical support to the activities of the Prince Edward Island Energy Corporation is also within the mandate of division staff.

Highlights

Renewable Energy Request for Proposals

Prince Edward Island has become a national leader in incorporating renewable energy, in the form of wind power, into the electricity generation mix. To further the exploitation of wind energy, Maritime Electric Company, Limited (MECL), in collaboration with the Department, announced on October 26, 2009 a Request for Proposals (RFP) for 30 megawatts (MW) of renewable energy for domestic supply and 100 MW of transmission capacity for export markets. The deadline for proposals was set for February 12, 2010. MECL received six responses and expects to conclude contractual arrangements with the successful proponents by the end of May 2010.

It is expected that the results of the RFP will increase domestic supply of renewable electricity, such that the Province will meet its target of 30% by 2013 that was expressed in the new Energy Strategy. Utilization of the remaining 100 MW of transmission capacity for export will provide revenues to be applied against electricity rates.

Submissions will be judged on the basis of providing the most favourable impact on electricity costs to MECL's customers. All projects must also comply with the Province's policy on wind development (10 Point Plan).

To ensure that the RFP and awarding of any subsequent contracts is fair, transparent and competitive, a Fairness Auditor has been hired by the Department to oversee the process.

Sale of Environmental Attributes

Environmental attributes are the premiums or tradeable credits that are derived from renewable energy generation. Because wind power is a non-emitting source of electrical generation, it may also accrue a significant quantity of environmental attributes.

Pursuant to section 10 of the *Renewable Energy Act* any environment attributes earned by a large capacity renewable energy generator, such as a wind farm, are appropriated to the Province. This includes attributes accruing from the Prince Edward Island Energy Corporation's wind facilities at East Point and North Cape.

During the year, the Department negotiated a sale of environmental attributes from the Energy Corporation's wind farms with TD Bank. As part of their corporate mission to reduce their carbon footprint, TD Bank applied these environmental attributes against their greenhouse emissions that were created from their Atlantic Canadian operations.

Office of Energy Efficiency

Reducing consumption through efficiency and conservation is the most cost effective approach to saving energy dollars and preserving the environment. On January 22, 2008 the Prince Edward Island Office of Energy Efficiency (OEE) officially opened its doors to provide Islanders with a one-stop venue for information about provincial and federal energy efficiency programs, services and other pertinent information.

Since opening, the Office of Energy Efficiency has assisted 4,000 Islanders complete residential energy audits and provided $5 million in loans to help residents make significant improvements in the energy efficiency of their homes. It is estimated that, on average, Islanders who made energy efficiency improvements through the OEE's programs are saving approximately $1,200 annually in energy costs.

Currently, the Office of Energy Efficiency offers the following programs:

1. PEI Energy Efficiency Grant Program - provides a direct subsidy of 15 per cent, up to $1500 per household, to Island residents who implement the measures identified in their EcoEnergy Audit Program Report;

2. PEI Energy Efficiency (Window and Doors) Grant Program - provides clients with a grant of $40 per eligible (energy efficient) window or door that is installed. (Amounts received under this program are deducted from the maximum available incentive through the PEI Energy Efficiency Grant Program.)

3. PEI Energy Efficiency Loan Program - provides financing to complete energy efficiency improvements to Island homes. Regular income clients pay a 6 per cent interest rate while loans issued to low-income clients are interest-free. Low-income clients may also be eligible for up to 50 per cent loan forgiveness.

4. Home Energy Low-Income Program (HELP) - provides a free weather proofing service to all low-income clients. The service includes air sealing the home, installation of a programmable thermostat and low-flow shower head, as well as providing a voucher for a free furnace cleaning.

5. Commercial Program - In August of 2009 the Office of Energy Efficiency launched new programs for the commercial/institutional sectors and the multi-unit residential sector. These new programs provide funding to complete energy assessments and financial assistance to make energy efficiency improvements. Energy audit assistance of up to $3000 is available in addition to incentives of up to $25,000 to make energy efficiency improvements.

The Office of Energy Efficiency will continue to deliver programs to meet the needs of Islanders.

Oil and Natural Gas Exploration

Approximately 320,000 hectares (790,000 acres) are under exploration in Prince Edward Island for oil and gas. Corridor Resources maintains two permits in central Prince Edward Island that have a combined area of 107,000 hectares (254,000 acres). BP Canada Energy Company is the holder of an offshore permit that is located off the eastern tip of the province. The remaining six permits, with combined holdings of 183,000 hectares (450,000 acres) in the eastern end of the province, have been issued to PetroWorth Resources Inc.

During the reporting period, no wells were drilled but both Corridor Resources and PetroWorth Resources continue with other exploration activities.

Assistance to the Prince Edward Island Energy Corporation

The Prince Edward Island Energy Corporation relies on the staff of Energy and Minerals Division to assist with its operations and initiatives. During the year, this included providing technical and administrative assistance to the North Cape Wind Farm, East Point Wind Plant, PEI Wind-Hydrogen Village Project and other projects that were undertaken by the Corporation.

Forests, Fish and Wildlife Division

Mandate

The Forests, Fish and Wildlife Division promotes sustainable forest management and wildlife and habitat conservation on public and private lands. The division manages approximately 30,635 hectares of public land, including 18,900 hectares in Provincial Forests, with an additional 13,040 hectares in Wildlife Management Areas and Natural Areas. The lands include 80 impoundments which not only provide important habitats, but serve as sites for angling, hunting, trapping, canoeing, bird watching and other outdoor recreation.

The division provides assistance and advice to private landowners and collects and maintains forest inventory information, wildlife population and habitat data, and other land use information. Work includes producing seedlings for public and private land planting and tree improvement work, and licensing anglers, hunters, trappers, guides and outfitters on Prince Edward Island. The division provides forest fire suppression on public and private lands, and delivers information programs to engage the public in forest, fish and wildlife issues. Education and awareness efforts are directed at target groups such as woodlot owners, hunters and trappers, school children and the public.

Highlights - 2009-2010

Prince Edward Island hosted the Canadian Council of Resource Ministers, deputy ministers' meetings in 2009. Federal, provincial and territorial ministers and deputies responsible for the portfolios of forestry, wildlife, parks, and fisheries and aquaculture meet on an annual basis to identify and implement strategies related to the management and use of Canada's natural resources. Due to scheduling conflicts, the Ministers' annual meeting was postponed to February 2010 in Toronto.

In fiscal 2009-10, the Forest Renewal Program ended and was incorporated into the Forest Enhancement Program. As the primary forest management assistance program for private woodlot owners, this program provides cost shared funding for the development of a forest management plan and a variety of silvicultural treatments.

The economic recession combined mill closures and with the high Canadian dollar has led to continued difficulties for the Island's forest sector. For example, the 2009 softwood harvest was estimated at 55,000 m3. This represents a decline of 90% in the Island's commercial softwood harvest from the highs of the late 1990s.

In 2009-10, staff from the Fish and Wildlife section offered 78 hunter safety training courses to more than 800 students. The Becoming an Outdoor Woman program was reintroduced to provide women with an opportunity to learn more about various outdoor skills in hunting, angling, firearms use and bow hunting.

Some 1,335,729 seedlings, representing 13 softwood, 11 hardwood, and 13 native shrub species were shipped for the planting of cut-overs, riparian zones, hedgerows, Christmas trees, and special areas on private and public lands across the Province.

The Market Development Officer was seconded to create a regional association of value-added wood product manufacturers called Atlantic Wood Specialties Association Inc. During the secondment period the Market Development Officer continued to work in the area of marketing on behalf of Island's value-added manufacturing sector.

The PEI Model Forest Network in cooperation with the Public Forest Council conducted a very successful winter workshop and field day for land owners and the public. The morning session dealt with issues related to climate change and trends in biomass and bioenergy. The afternoon session featured horse-logging demonstrations and tips on identifying winter wildlife.

Division Administration and Special Programs

Forests, Fish and Wildlife Information
The Forest, Fish and Wildlife Division Information Program co-ordinates general awareness and youth education programs related to Island forests. It also provides communications support and planning services to the director, managers, and division staff.

Fifty-two radio segments were completed for Agriculture Today, a weekly radio program that runs on several Island stations. Another 12 issues of ForestNet, a monthly newspaper column which features topics of interest to the Island's forest community and focuses on increasing the profile of web-based resources related to Island forests. The Information Officer also worked to maintain and upgrade the division's web site. Considerable time was spent developing a new site for information and study materials related to the Provincial Forest Envirothon program.

The Department of Education and early Childhood Development asked the Forests, Fish and Wildlife Division Information Officer to participate on the curriculum development committee for a new Environmental Studies 621A program. ES621A is a project-based learning program that will introduce a wide variety of environmental science concepts and information to Grade 12 students in Island high schools.

The division continued to work with the Department of Education and Early Childhood Learning to support the Education for Sustainable Development (ESD) initiative. Island groups, agencies and organizations with an interest in and commitment to education and sustainable development were invited to a special meeting to gauge interest and support for the creation of a PEI Education for Sustainable Development Steering Group.

The Information Officer is also responsible for the development of the annual Provincial Forest Envirothon, a voluntary science education program for senior high school students that emphasizes basic science skills in forestry, soils, aquatics and wildlife. It is a cooperative effort with the Provincial Forest Program, and staff from other programs, departments and agencies across PEI. Teams from Charlottetown Rural, Bluefield, Westisle, Morell, Colonel Gray, Kensington, Kinkora and Three Oaks competed in the 2010 Provincial Forest Envirothon. A team from Three Oaks won the overall competition and was invited to the 2010 Canon Envirothon competition in Fresno, California.

The department worked with Canadian Woodlands Forum, and other forest sector partners from across the region to develop and host the 2009 Atlantic Teachers Tour program. Seven Island teachers visited forests in central New Brunswick to learning about the science used to manage Maritime forests, exploring the economic and social aspects of large and small forest-based industries, and examining the range of forest sector employment opportunities for their students.

The Forest Information Officer continued to provide logistical and communications support to the Public Forest Council and PEI Model Forest Network Partnership program. Support and planning was also provided for the annual meetings of the Canadian Council of Resource Ministers annual meetings on Prince Edward Island in 2009.

In 2009 the Island's Ground Hemlock harvest sector experienced a modest increase in growth. Harvest of Taxus canadensis was mostly confined to western areas of the Island.

Market Development
The Market Development Officer is tasked with identifying and developing strategies to enhance the economic values received from the Island's forests through value-added processing or the development of new products and opportunities. In 2009, the Market Development Officer began a two-year secondment to create a regional association, Atlantic Wood Specialities Association Ltd, and support the development and marketing requirements of value-added wood product manufacturers in Atlantic Canada.

During the secondment period the Market Development Officer also continued to work on behalf of many of the PEI manufacturers especially in the area of marketing.

During fiscal 2009-10, the Market Development Officer worked to encourage value added business development by running focused workshops in each of the four Atlantic Provinces. The workshop held on PEI was directed at finding energy savings in the manufacturing process.

In January 2010, Atlantic Wood participated in the International Builders Show in Las Vegas. Participation in this trade show proved to be successful by finding a new market for one PEI based company. Atlantic Wood also brought global attention to the Atlantic region from other buyers at this show.

Interprovincial Initiatives
In January, 2010, the Minister chaired the meeting of Canadian Council of Forest Ministers in Toronto.

Staff chaired the Canadian Council of Forest Minister's Coordination Group and participated in the Wildland Fire Management Working Group, the International Forestry Partnership Program and the Climate Change Task Force's work on tree adaptation, and the National Forest Sink Committee discussions on developing a carbon framework.

Staff also participated in the Canadian Council of Resource Ministers' Biodiversity Steering Group work leading up to the 2010 Convention on Biological Diversity (CBD). This included Canada's National Report to CBD, Access and Benefit Sharing for Genetic Resources, and the Ecosystem Status and Trends Reports at the Atlantic Maritime Ecozone and national levels. The BSG initiated projects on the Gap Analysis on Biodiversity and Adaptation to Climate Change Committee, the engagement strategy for the 2010 International Year of Biodiversity, and valuing biodiversity and nature.

As well, the senior manager continued to represent the province at the Maritime Lumber Bureau and through the Softwood Lumber Agreement between the Government of Canada and the Government of United States.

Provincial Forest Program
Provincial forest land is managed to encourage a range of economic, environmental and social benefits. Staff continued to implement and demonstrate sustainable forest management on the 18,900 hectares of land managed for the people of Prince Edward Island through a combination of tendered contracts, public partnering, and government silvicultural crews.

In 2009, there was a significant reduction in the harvest activity, particularly for softwood products. This reduction was caused by the ongoing economic recession and the resulting closure of mills on PEI and elsewhere in the region.

In 2009, the Provincial Forest planted 38,000 tree seedlings representing eight softwood and hardwood species to improve biodiversity and other values on public lands. Some 53 hectares of manual plantation maintenance, 22 hectares of commercial thinning and crop tree release, and 11 ha of pruning was conducted on these lands. A total of five ha of recently harvested land was site prepared for planting in 2010. Various forest maintenance access activities such as roadside

maintenance, silt trap installation, pruning and/or dead fall removal were carried out on 70 km of Provincial Forest roads.

Under the supervision of professional and technical staff, government silvicultural crews harvested wood, created artificial cover piles for wildlife, created and maintained new and recreational trails, cleaned up illegally-dumped garbage, and managed six Demonstration Woodlots. Using a mixture of individual tree release and basal area harvesting techniques, softwood and mixed wood cover types were harvested. Products from these treatments were extracted using a farm tractor and grapple loader and put roadside. In 2009 a total of 281 cord of product was extracted and sold.

In addition provincial forest tenders were offered on horse logging, harvested fuel wood, harvested softwood and poplar, standing timber, and balsam fir tips. These tendered sales brought in revenues of $55,700 in 2009-10.

In 2009 the Provincial Forest Section partnered with Island Trails and the P.E.I. Cycling Association in the establishment of 5.8 km of cycling trail on Provincial Forest Land on the Gairloch Road in southeastern Queens County.

The Eastern Forest District and the P.E.I. Roadrunners Association for the 10th time hosted the Provincial Forest Fall Frolic at the New Harmony Demonstration Woodlot just north of Souris on October 10, 2009. While the weather was cold and wet, some 70 runners participated and raised $700 for Macintyre House, an adult group home located in Souris. The overall winner of the 12.6 km race was Nathan Paton in a time of 54 minutes and 12 seconds, top female was Pat Ellis in 57 minutes 59 seconds and the winner of the 4.6 km race was Niall Burnett in a time of 20 minutes 28 seconds.

The district conducted four separate chainsaw training courses in 2009. They included the 35 hour Silviculture Worker Lesson Plan and the one evening Cutting Firewood Safely courses. In addition staff provided introductory chainsaw training at the inaugural Becoming an Outdoor Woman (BOW) course. This training was well received and it is anticipated that it will be a part of the BOW weekend itinerary in future years.

Greening Spaces program trees were provided for both the Cardigan and Souris Canada Day Parades. In both instances trees were handed out to patrons along the parade route. Due to the positive response, this program will likely be included in future parades.

Eastern District Provincial Forest staff partnered with Boy Scouts in the planting of 200 white spruce seedlings in the St. Peters area in 2009 and another 300 trees were planted in Dover as part of the Batesville Memorial planting. These trees are provided by the J. Frank Gaudet Tree Nursery and planted by a local 4-H group who receive a donation for each tree planted from the Batesville Company. Eastern District Provincial Forest staff and Upton Road staff cooperate on the supervision and organization of this event.

Staff from the Western Forest District provided technical assistance to various organizations including Maritime Electric for the new power corridor project, the International Children's Memorial in Freetown and the Kensington Provincial Forest hiking trail. Additional support was provided by watershed groups in Kensington North, Mill River, Arsenault's Pond and Richmond Bay. Technical help was also provided to ten community groups and schools through the Greening Spaces Program.

Additionally, the Provincial Forest Mill River Sugar Bush Tours attracted 1137 participants including students, teachers and members of the public. Western Forest District staff conducted three Basic Silviculture Lesson Plan Courses (15 participants) and two Weekend Woodcutter Courses (18 participants). A Chainsaw Sharpening Clinic was also offered during the Forestry Field Day held in Northam in July of 2009.

The 2009 Giving Trees...Giving Hope, a fund raiser and awareness campaign for the Canadian Breast Cancer Network was held on a Provincial Forest property on the Harmony Line Road, raising approximately $2,500 for CBCN outreach and awareness efforts.

Forest educational talks were given to four classes at St. Paul's Kindergarten, as well as the Summerside Beavers, Summerside Girl Guides and Sprites, and two environmental classes at Three Oaks Senior High School. Two "Forestry as a Career" presentations were also provided at Three Oaks during their annual career day. Staff provided technical assistance to the City of Summerside for their wooded parks.

The Central Forest District provided technical assistance and training for the Silviculture Lesson Plan, Weekend Woodman Safety, Level 1 Fire Course and a woodlot management course. This training is offered to Holland College, watershed groups, provincial government staff and high school students. Demonstration woodlot tours were offered to students from elementary, junior high and senior high school students and the Central Forest District provided technical and staff support to the 2010 Provincial Forest Envirothon program.

The program's silviculture efforts are used to manage public lands for a wide range of values and uses. Management plans are being prepared and updated for each Provincial Forest property and all silvicultural work is conducted in accordance with the standards contained in the Ecosystem-based Forest Management manual. Work is carried out by Provincial Forest staff and private sector forest contractors

The Provincial Forest Program continued to develop co-management agreements with nonprofit recreational groups such as the PEI Horse Council, Cycle P.E.I., P.E.I. Road Runners, TARRP and Island Trails. Under these agreements, groups work with provincial forest staff to develop selected public lands for specific recreational uses.

Fire

The spring of 2009 was relatively wet and cold and heavy rains in October brought a rapid end to the fire danger. There were only eight forest fires reported on Prince Edward Island during 2009-10 and these fires burned 3.09 hectares.

The Fire Weather Index (FWI) is calculated from the meteorological data collected at three Island sites and fire danger information was provided daily to division offices, other departments and local media through Island Information Services. This information could also be obtained by phone or on-line at www.gov.pe.ca/go/fwi. Burning Permits were provided to the public. These permits provide safe burning information to the holder, the location of permitted controlled burns to local fire brigades and identification of burn sites that do not have permits.

Operating agreements were signed with the Souris, Georgetown, Wellington, West Point, and East River Fire Departments. Staff participated in the Western Prince Edward Island Mutual Aid group. New specifications for a float tractor were developed to allow purchase of a new tractor truck for the older Bombardier. In conjunction with the Highways Garage and Paint Shop, the older Muskeg Bombardier tanker's tank and pumping system were replaced. One bombardier float was re-decked and the forest fire tanks on three 4 X 4 fire trucks were reconditioned.

Summary of Forest Fire Statistics for the 2009 Fire Season

FIRES	AREA
8	3.1 ha

SUPPRESSION COSTS	VALUES LOST			
	Forest Resources	Structures	Improvement	Total
$ 182,200 Estimate	$ NA	0	0	$ NA

Forest fire staff participated, with equipment, in the Metro Fire Prevention Association displays.

Prescribed burns for tree planting and forest management operations on the Island are almost non-existent. Most prescribed burns are initiated for agricultural conversions to row crops and blueberry cultivation as well as infrastructure and other developments. A total of 1,047 burning permits were issued in 2009 as part of the forest fire prevention program.

Basic forest fire suppression training was provided to volunteer firefighters at several locations using a CD-ROM version of the basic forest fire suppression course.

Two staff members participated in the North East Fire Compact S215 Wildfire Operations in the Urban Interface course in Fredericton, N.B., and three staff members took the Wajax Mark III pump school offered in September 2009 at Shubenacadie, N.S. A staff member continued as the Atlantic Province's representative for the Forest Fire Equipment Working Group and attended the Fire Equipment Working Group (FEWG) and the joint FEWG/Forest Fire Equipment Team meetings in Missoula, Montana.

In September, the department hosted the Atlantic Forest Fire Coordinating Committee meeting at Stanley Bridge. This workshop allowed staff the opportunity to learn more about a variety of regional initiatives. The Muskeg Bombardier and the backpack pumps with lumbar support were displayed during the workshop.

Staff provided input into the business planning and forest fire mutual aid sharing initiatives of the Canadian Interagency Forest Fire Centre. In addition, staff continued to participate in the Canadian Wildland Fire Strategy initiative and the Canadian Council of Forest Minister's Wildland Fire Management Working Group.

Work continued to implement the Maritime Provinces MOU on the development of a Maritime-wide mobile radio communications system. As well, staff participated in CIFFC's initiative to develop a new Type 1 Initial Attack Forest Fire Fighter Bonafide Fitness Test to augment mutual aid in Canada.

Private Land Program

Approximately 88 percent of Prince Edward Island's forest land is privately owned. The department offers a number of programs and services designed to help private land owners manage their forest lands.

In accordance with the recommendations of the 2006 Forest Policy, in 2009-10 the Forest Renewal Program ended and the Forest Enhancement Program became the primary program available to private land owners. Revenue collected under the old Forest Renewal Program regulations are now directed towards the Forest Enhancement Program

Under the FEP, landowners are required to have an approved forest management plan prepared for their property. Plan preparation and many silvicultural treatments are cost shared between the landowner and the province. However, landowners are expected to pay their share directly to their contractors as well as any treatment costs that are in excess of program incentive grants.

Currently the FEP has a client base of approximately 2800 active clients. In fiscal 2009-10, 68 forest management plans were

prepared and 1,157,000 seedlings were planted to establish plantations and meet forest enrichment objectives. In addition, 740 hectares of established plantations received maintenance treatments, 68,000 trees were pruned to improve their health and quality and 30 hectares of natural forest was thinned.

Poor lumber markets continued to result in a reduction of commercial softwood harvest and interest by landowners in reforestation.

Model Forest Harvest Trends

Production Development

In 1982 the provincial government named the provincial forest nursery in the memory of J. Frank Gaudet. Frank Gaudet was a highly respected forester and his dedication to PEI's forests included the establishment of a provincial forest nursery, the development of forest improvement demonstrations, a private lands forest management program, and the development of a forest fire control system. Frank was a true visionary and devoted 28 years of leadership to the Forest Service on PEI.

Today, the J. Frank Gaudet Tree Nursery produces high quality improved tree seedlings for reforestation projects and wholesales native trees and shrubs to retail landscape trade. In 2009, some 1,335,729 seedlings, representing 13 softwood, 11 hardwood, and 13 native shrub species were shipped for the planting of cut-overs, riparian zones, hedgerows, Christmas trees, and special areas on private and public lands across the province. The following species are grown at the Nursery: Red, White and Austrian Pine; Red, White, Black, Norway, and Colorado Blue Spruce; Eastern and Japanese Larch; Balsam Fir; Hemlock; Cedar; White and Yellow Birch; Red Oak, White, and Green Ash; Red and Sugar Maple; Poplar; Mountain Ash; Elm; Serviceberry; and a variety of native shrubs. The nursery produces three (3) different sizes of plant material for different programs: 4 & 6 cubic inch cell multi-pot trays for reforestation; 20 cubic inch cell multi-pot trays for hedgerow/shelterbelt/riparian zones; and 1 gallon pots for watershed/riparian zones.

Nursery staff offered tours to groups and individuals who were interested in visiting the largest seedling production facility on PEI. In 2009, 276 people from schools, youth, and conservation groups, as well as the general public, toured the facility. During the 2009 Environment Week, another 680 people visited the Nursery to view displays on public and private forests, riparian zone management, environmentally-friendly agricultural practice, horticulture, farm safety, entomologist and native plants, and many other displays related to the natural resources on PEI.

2009 was the final year for the nursery's involvement as part of the Atlantic Innovation Fund. The nursery assisted with the Native Rose Development, a five-year research initiative at the University of Prince Edward Island. The Nursery staff offered professional and technical direction, advice and assistance; provided a work area and labour for preparation of cutting material; materials and supplies for project (containers, growing media, rooting hormone, fertilizer); greenhouse facilities and operation (temperature and humidity controlled); fertilizer and pesticide programs; general crop maintenance after rooting; overwintering of crop; and delivery of crop. The Nursery produced 3,150 plants for the program and established eight (8) clone beds for future production.

The Nursery was involved with the Eastern Canadian Soil and Water Conservation Centre by supplying plant material and establishing two (2) sites of over 1,000 plants for an agro-forestry demonstration. Nursery staff also provided a greenhouse to the Potato Quality Institute to carry out seed virus testing.

The Nursery gives advice, assistance, and information on insect and disease problems for ornamental plants, trees and shrubs, and provides detailed information on landscaping and plant health issues. In 2009, staff provided

advice on landscape problems to thousands of PEI property owners; analyzed approximately 197 insect and disease samples, answered 213 e-mails and made 10 on-site visits to individuals and communities. The Nursery also monitors native insect populations and in February delivered an updated technical presentation on native and exotic insects to our field staff.

Tree Improvement

The Tree Improvement Program produces the seed required for the Nursery. This is achieved by controlled cross-breeding of selected high quality samples of several Acadian Forest tree species.

In 2009, staff made measurements of six test sites, recording growth and survival. Maintenance was conducted on one test site. The Dover Seed Orchard provided 80.77 kilograms of improved seed. Cone production seed yield is as follows: 20 bushels of Red Spruce cones yielded 7.54kg of seed; 25.5 bushels of Black Spruce cones yielded 3.97kg of seed; 43 bushels of White Spruce cones yielded 26.9kg of seed; and 23.5 bushels of Balsam Fir cones yielded 42.47kg of seed.

Greening Spaces Program

The Greening Spaces Program (GSP) was created to encourage communities, schools, volunteers, and interest groups to plant trees in order to diversify properties, buffer prevailing winds, provide shade, reduce noise, protect lands along streams and rivers, control soil erosion, create outdoor learning areas such as arboreta or tree and shrub nurseries, and provide habitat for wildlife.

In 2009, the Greening Spaces Program worked with 122 clients to establish over 77,000 native shrubs and trees on public and private lands across the Province. Clients included 17 schools, 18 community groups (supplied 6,282 shrubs/trees), 24 watershed groups (supplied 21,947 shrubs/trees), and 73 hedgerow/riparian zone clients (supplied 48,720 shrubs/trees).

Resource Inventory and Modeling

Lidar Derived Geographic Information

The Light Detection and Ranging (LiDAR) data acquired in 2008 was used to modify and create several new layers of information at a very high level of accuracy. These layers included PEI Sloped Land Inventory. Contours at 50cm intervals, watershed boundary re-definition and hydrographic network validation

In addition, plans are underway to use the data to generate a seamless Digital Elevation Model which will include offshore and onshore components. This will then be used to accurately map PEI's mean high water mark.

2010 Corporate Land Use Inventory

Preparation for the 2010 corporate land use inventory, staff assessed a pilot project using softcopy photogrammetry techniques and this resulted in a recommendation that the 2010 inventory be completed using this innovative, digital approach. The existing 2000 Corporate Land Use Inventory (CLUI) will be used as a base and any type of land use including forest, wetland, agriculture, residential, urban, institutional, industrial, commercial, transportation or recreational, will be mapped.

Additional preparations for the ground-based inventory were also completed including locating and delineating the 817 existing sample plots located across Prince Edward Island.

Wetland Mapping

Based on the need to provide landowners with information regarding buffer zones, a new map of bufferable wetlands was generated. This map is available at www.peilandonline.com and identifies wetlands containing open water, shallow marshes or deep marshes. Farming and other activities are restricted within 15m of these wetlands.

Plantation Mapping
New GPS units were purchased to help Forests, Fish and Wildlife staff to map plantation boundaries on an easier and more accurate manner. The plantation information is then added to the 2000 CLUI in preparation for the 2010 Inventory.

Alternative Land Use Services (ALUS)
The implementation of the ALUS program required an assessment of the amount of land eligible to be taken out of agriculture production or currently in beneficial management practices. With this in mind, the 2000 CLUI along with the new wetland and hydrographic layers was used to generate the required information.

Lands Protection Act
A policy was established to allow those farmers nearing their landholding limit, to get credit for land in forest, buffer zones, high slopes, wetland, erosion control structures, permanent grassed headland and hedgerows. To facilitate the implementation of this policy, a new geographic layer was created to measure each of these features on every property.

Climate Change Research
In order to develop strategies that address the anticipated changes in forest cover brought about by a changing climate, the section worked with the Dr. Charles Bourque of the University of New Brunswick to generate a spatial model of landscape-level surfaces that represent the potential impact for six deciduous and seven coniferous tree species of strategic importance to PEI. Results indicated that, under the model's assumptions, various species will be impacted by climate change with the majority experiencing some stress. This model will have input in the policies of current and future forest management.

Public Mapping Information
The Resource Inventory and Modeling Section continued to provide geographic information to the public through the production of hard copy maps and the on-line mapping service for Island land owners www.peilandonline.com. The information is widely used for environmental impact assessments and development planning.

The section continues to provide property and land use map to any watershed group wishing to plan for improvement work to their areas.

Potato Grower Maps
Staff completed a three year project to provide farmers who grow for Cavendish Farms with maps of their proposed potato fields. Each farmer now has maps available to show the existence of buffers and slopes on all fields in a three year crop rotation.

Growth and Yield
Staff continues to measure forest growth through the assessment of permanent sample plots (PSP). More than 350 PSPs are located in a variety of forest types across the province and measured on a three-year cycle. Many of these plots are being measured for the ninth time, providing valuable and detailed information on forest growth and development. This data will be incorporated into the 2010 State of the Forest Report.

Plantation assessments continue to ensure planting quality (Year 0 assessments) and to monitor the early success and growth of plantations (Year 5, 10 and 15 assessments). This information will also be incorporated into the 2010 State of the Forest Report.

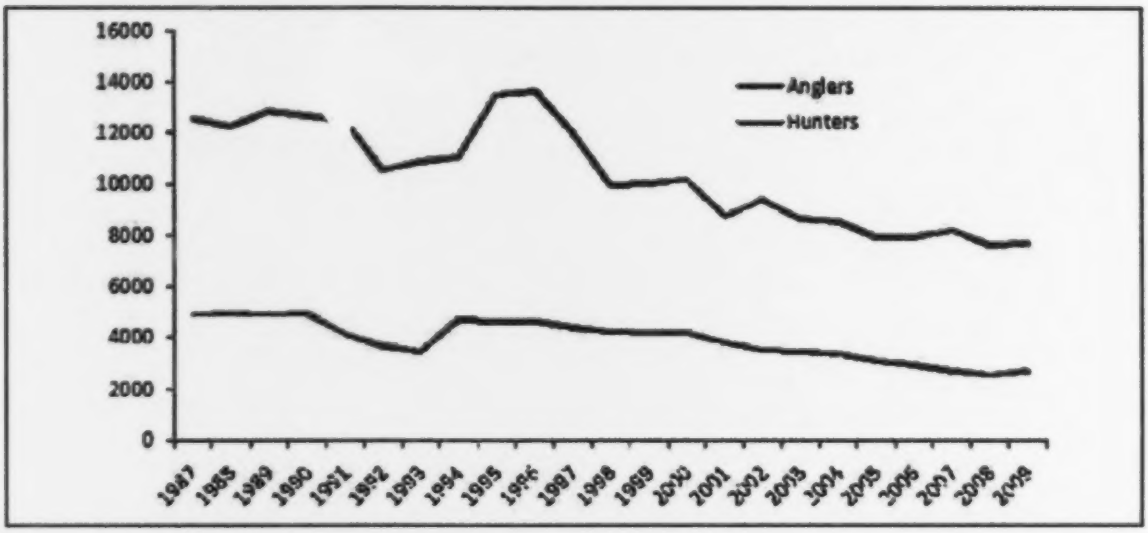
Woodlot Owner Survey
The 2nd Survey of Prince Edward Island Woodlot Owners was completed in 2009 and was sent the Canadian Forest Service for analysis. Important information on attitudes and trends will be used to help government revise existing programs and policies to better meet the needs of woodlot owners.

Forest Certification
Preparation began to demonstrate various forest certification initiatives on select Prince Edward Island's public forests. The Forest Stewardship Council process was selected as the first certification scheme and other system are being evaluated. The results of each system will be made available to the public and land owners.

Licensing and Permitting Program

The Fish and Wildlife Section issues licenses and permits pursuant to the Wildlife Conservation Act and regulations. The majority of licenses are issued to consumptive users such as anglers and hunters. In 2009 the number of participants increased for all categories from 2008 (Figure 1). This result is encouraging but the long-term trend continues to be in decline.

Figure 1. Angling and hunting licenses issued annually 1987-2009.



Other permits issued in 2009 include: permits to remove nuisance wildlife, scientific collection permits, permits to keep wildlife in captivity, permits to hunt raccoon at night and other specific permits related to wildlife and wildlife habitat.

Wildlife Conservation Fund

The Prince Edward Island Wildlife Conservation Fund (WCF) was created in 1998 to support conservation initiatives led by community-based groups. Money for the fund comes from a $20 contribution made annually by each licensed angler, hunter and trapper. The money raised through the Wildlife Conservation Fund is distributed to wildlife conservation projects across the province following the review by the WCF Advisory Committee of submitted applications from groups and organizations. As of January 2006, the PEI Wildlife Conservation Fund is overseen by a committee composed of 10 members including:

- three representatives from the angling community
- three representatives from the hunting community
- one representative from the trapping community
- one representative from community watershed groups
- one representative of non-consumptive users such as bird-watchers and hikers
- one representative from the Department of Environment, Energy and Forestry

The Island Nature Trust serves as the day-to-day administrator of the Wildlife Conservation Fund, under the direction of the Wildlife Conservation Fund Committee.

In 2009, the PEI Wildlife Conservation Fund Advisory Committee approved funding for 31 projects totaling $161,014. To see the complete report contact: Island Nature Trust, (902) 892-7513, wcf@eastlink.ca.

Public Awareness and Education Program
Staff from the section is regularly called upon to make presentations to various schools and community organizations. The calls for injured wildlife and site visits increased from 2008. The Fish & Wildlife Section responds to all calls with an attempt to do what is best for the animal.

Firearm Safety/Hunter and Trapper Education
Canadian Firearm Safety courses and challenges were offered at the Access PEI Centres and the Forests, Fish and Wildlife office at 183 Upton Road. In 2009, 78 courses were held for approximately 800 hundred students. These courses drew from a pool of 15 active instructors.

The division maintains the legislative requirements to issue Hunter Safety Certificates required by all hunters. The province partnered with Hunterexam.com to offer a new and exciting way to take Hunter Safety training on PEI. It has been a huge success including positive feedback on content, the ability to work at your own pace and the quality of the online program.

A bow hunter course was offered in 2009 as well as an instructor course. Twelve new bow hunters were certified as well as six new instructors.

A youth waterfowl workshop held in September continues to be a success with over 120 participants. Youth aged 12 to 17 were exposed to a variety of outdoor topics including, outdoor survival, wildlife identification, wildlife management, firearm safety, bow hunting and trapping. Youth who wished to get their hunter safety certification were given the opportunity to complete educational material beforehand and do the practical component on this day in order to receive hunter education certification.
A youth exchange was completed in partnership with both New Brunswick and Nova Scotia in 2009. A young person from Summerside was chosen to hunt with her father in New Brunswick in 2008 but because age requirements differed in New Brunswick, she did not complete this trip until 2009. As part of the regular 2009 exchange, a youth and his brother from Nova Scotia were given the opportunity to hunt geese and pheasants in Prince Edward Island and a youth from Prince Edward Island had the opportunity to hunt bears in Nova Scotia.

Trapper education is required for all first-time trappers. Training was conducted jointly by the department and the Prince Edward Island Trappers Association. In addition to the regular fall trappers course, a spring course was also offered in 2009. Twenty-one students received training in 2009 at two-day courses held at Upton Road in October and April. In addition, 19 students at the Wildlife Technologist Course at Holland College participated in the two-day course and obtained certification. In all, 40 students passed the trapper education course in 2009.

Environment Futures Program
The Environment Futures Program (EFP) helps to educate high school and university students on the importance of wildlife protection and habitat enhancement. EFP employed 21 students in 2009. There were five crews consisting of three members and a supervisor, typically high school and post secondary students returning to school. The five supervisor positions were staffed with returning students enrolled in the fields of biology or environmental study. Crew members are provided through the Employment Development Agency.

The EFP crews take the initiative to get involved and assist other groups in improving wildlife habitats and other environmental projects across the Island. In 2009, some of the projects included; brush mats, tree planting, garbage clean ups/surveys, beaver dam removal, protecting and enhancing natural areas, trimming trails and participated in the Community Aquatics Monitoring Program (CAMP). The tasks and projects gave the students an opportunity to

help their communities save and replenish local environments and encourage the public to do the same. This provided a positive message to the students and it is hoped that they will take what they learned with them in their future endeavours.

Protected Areas and Biodiversity Conservation Program

In 2009, the Province added 720.4 hectares (1780 acres) to the lands protected from development by the *Natural Areas Protection Act* in Prince Edward Island. In total, 33 properties were designated including 4 properties of the Island Nature Trust and one belonging to the Nature Conservancy of Canada. Among the most significant public lands designated were Boughton Island (158.4 ha), Basin Head Sand Dunes (93 ha) and Bear River Hardwoods (137 hectares). The latter is especially noteworthy in conserving some older tolerant hardwoods, an ecological community that is under-represented in the protected areas of the province. Additional woodlands in Brookvale, St. Charles, Richmond and Beach Grove were also protected.

Among the properties designated at 15 sites were Acadian salt marshes at Haldimand River and Percival River, and riparian zones along the Morell and Naufrage Rivers.

Much effort went into designating properties in 2009, but looking after existing natural areas was also important. Marram grass (5,000 plants) was planted to repair damage to the dunes at Cedar Dunes Park and natural area. A garbage removal project began at the Howe Point Natural Area with the removal of seven tons of garbage. Smaller scale clean- ups were completed at Dingwell Mills, Forest Hill, Mount Stewart and Dromore Wildlife Management Areas.

Accord for Protection of Species at Risk

The Forests, Fish and Wildlife Division continued to participate in national processes under the Accord for the Protection of Species at Risk. The publication Wild Species 2005: The General Status of Species in Canada became available online in 2006 (www.wildspecies.ca). It incorporates the work of knowledgeable experts and volunteers in Prince Edward Island and across Canada to assign status ranks to species in the country.

Species groups included for Prince Edward Island and numbers (bracketed) are vascular plants (1052), freshwater mussels (2), tiger beetles (5), odonates, i.e. damselflies and dragonflies (66), fishes (27), amphibians (10), reptiles (3), birds (337) and mammals (35). The coarse evaluation of risk for the 1,537 species indicated the following:

1. Extirpated: 12 (<1%)
2. Extinct:1 (<0.1%)
3. At Risk:3 (<0.1%)
4. May be at Risk: 208 (14 %)
5. Sensitive: 99 (6%)
6. Secure: 607 (39%)
7. Undetermined:80 (5%)
8. Not Assessed: 2 (<0.1%)
9. Exotic: 375 (24%)
10. Accidental: 150 (10%)

In 2009, status ranks were assigned for the first time to mosses and lichens, spiders, butterflies, bumblebees and predaceous diving beetles. Species lists for these groups were devised and expanded upon for PEI. All lists of mammals, birds, amphibians and reptiles, insects including dragonflies and damselflies, horse flies and deer flies; mosquitoes and black flies; bumblebees and tiger beetles, will be placed online in 2010 with a coarse rank showing the risk of extinction for each species. Vascular plants, mosses and lichens are also treated. This work is done with input of local and national experts and involves many knowledgeable individuals.

The division continued to contribute information and support to the Maritimes Breeding Bird Atlas (MBBA), a five-year project (2006-2010) to document the distribution and relative abundance of breeding birds. The first Atlas was

completed in 1990. The division also cooperated with Canadian Wildlife Service of Environment Canada to set priorities for bird conservation in the province based on a number of bird data sets including the Breeding Bird Survey and the MBBA.

Species at Risk
As endangered species legislation is implemented in Canada, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) determines the degree of endangerment of species of wildlife. In 2009 over 60 species were assessed including the following PEI species: Monarch Butterfly, Leopard Frog, Basking Shark, American Plaice, Deepwater Redfish, Acadian Redfish, Eskimo Curlew, and Grey Whale. PEI will host the spring 2010 meeting in Charlottetown.

The province continued to support conservation programs for the endangered Piping Plover on Island beaches and participate in the Piping Plover Recovery Team for the melodius subspecies.

Eastern Habitat Joint Venture
This program focuses on the protection, restoration and enhancement of wetland habitats within the province. An important component of the Eastern Habitat Joint Venture Stewardship Program (EHJV) continues to be to work with the agricultural community to remedy the detrimental impact of farming practices on the Island's streams and wetlands. Direct financial assistance from EHJV partners has been provided in past years in support of agricultural soil conservation projects and fencing livestock from watercourses and wetlands, for example. These types of projects are partially funded through Canada - Prince Edward Island Agricultural Programs, as are the Constructed Wetlands and Agricultural Wetland Restoration projects designed to enhance or restore wetlands associated in the agricultural landscape. Ducks Unlimited Canada is the lead agency in delivering the wetland enhancement component in P.E.I., which includes Farm Pond Construction, Rural Biodiversity and Wetland Restoration Programs. Wildlife Habitat Canada provided funding support to these activities in 2009.

The EHJV also acquires wetland properties, often in support of the Provincial Protected Areas and Biodiversity Conservation Program. Ducks Unlimited Canada and the Nature Conservancy Canada partner with the division in this activity. Two properties bordering the Marie River in Kings County were acquired through the EHJV partnership in 2009; a 40 acre property adjacent to the impoundment on the Sandy Cape Road, and an 80 acre wetland nearer to the headwaters of the river.

Wildlife Population Assessment and Habitat Section

Status of Game and Furbearers
Waterfowl breeding pairs and brood surveys were conducted in 2009. These surveys provide an annual index of waterfowl production for wetlands across the province and supply essential data for regulatory management decisions. Annual spring breeding pair counts have shown a stable to increasing population trend from 1995 through 2008.

Weekly surveys of wintering waterfowl were conducted on 33 sites in January and February. Results provide an index to changes in numbers, species composition and distribution of wintering waterfowl. Survey results are given in Figure 1.

Efforts were also directed at banding locally produced ducks with the assistance and co-operation of the Canadian Wildlife Service. Waterfowl banded in the summer of 2009 included Black Ducks, Blue-winged Teal, Green-winged teal, American Widgeon and Mallard. Three hundred Black Ducks and Mallards were banded during the winter. The spring Canada Goose banding program continued in 2009,

using rocket nets to capture the birds. Bald Eagles were banded, in a continuing effort to gain information on migration patterns and mortality factors for eagles raised at Island nest sites.

The November Canada Goose aerial survey program continued in 2009 in co-operation with the Canadian Wildlife Service. The count was the highest on record represented an increase of 121 per cent from the previous 10-year average. Black Ducks counted during the survey increased 57 per cent from the previous year which represented a 32 per cent increase from the previous 10-year average. During the survey, 63,460 Canada Geese and 19,873 Black Ducks were observed.

Other wildlife surveys conducted during 2009 included the Cormorant nest counts, Woodcock singing ground survey, and the annual monitoring of the wild fur industry.

Wildlife Management

Two trappers were hired from April to October to mitigate highway beaver problems across the Island. This reduced beaver problems, saved the Department of Transportation and Infrastructure Renewal valuable machine time, and resulted in improved beaver management.

The division continued to work with the Department of Agriculture, the Sheep Breeders Association, the PEI Trappers Association, and the Federation of Agriculture in dealing with problems associated with coyotes. The division continued to monitor the population status, reproduction, food habits and annual harvest. As well, efforts continued to educate the general public on dealing with coyotes.

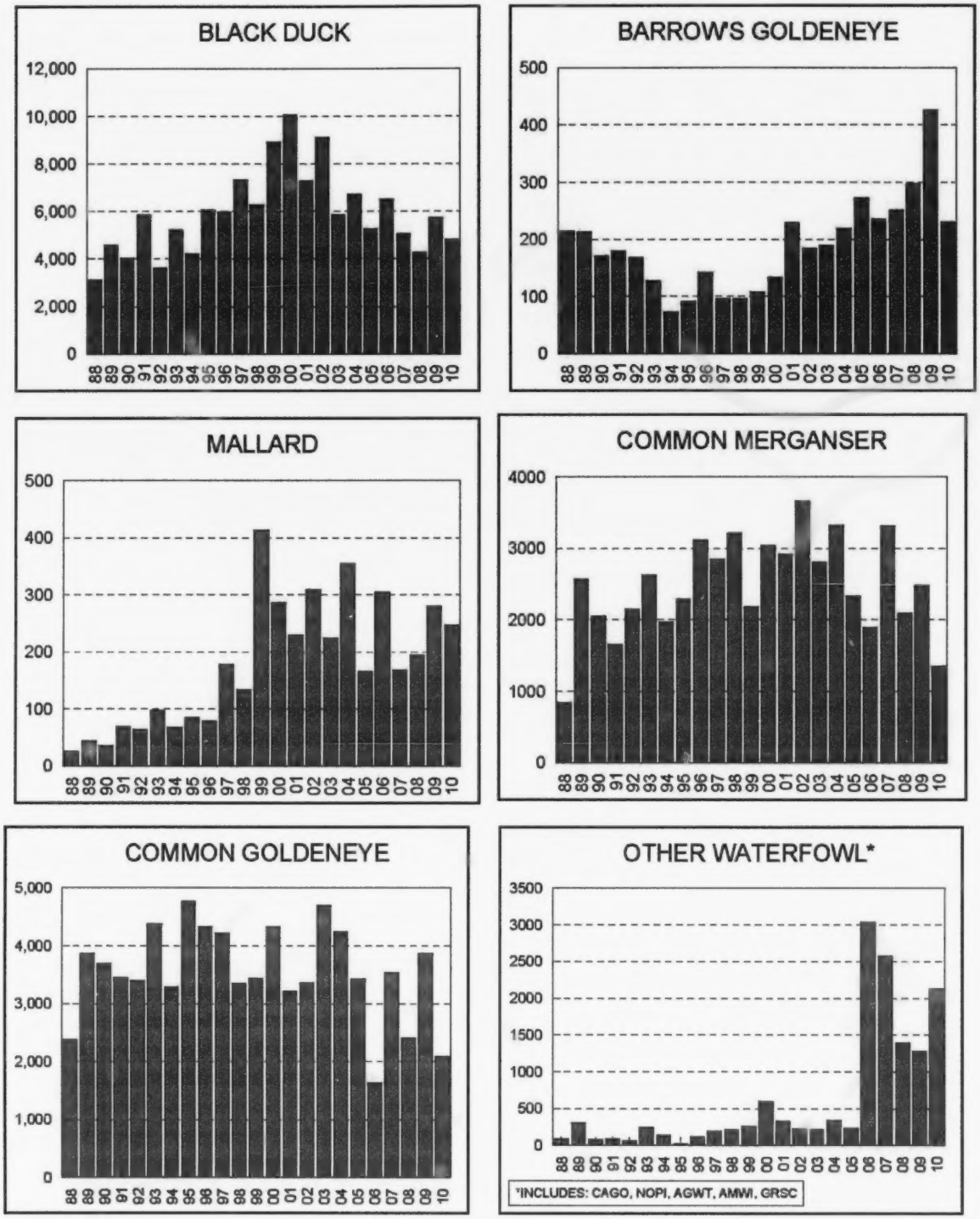
Geographic Information System

As part of the Corporate Land Cover and Land Use Inventory (2000), the Fish and Wildlife Section continued to update the Wetland Inventory in the government Geographic Information System (GIS). The section continued to maintain and improve other resource layers and develop more effective means of delivering GIS products within the department, interdepartmentally and externally.

The need to improve the accuracy of both the watershed and hydrographic (watercourse) layers is a priority. Most government resource agencies, as well as numerous community groups concerned with watershed management, use the watershed and hydrographic layers to develop watershed management plans, calculate soil erosion risk indices, develop groundwater models, produce buffer zone calculations, etc. More precise layers are needed to meet these objectives. Both the watershed and watercourse layers are being updated.

The Forests, Fish & Wildlife Division is represented on both the GIS Co-ordinating Committee and the GIS Technical Committee which serve to develop and implement a policy framework for creating and distributing government GIS data.

Figure 1: Total maximum waterfowl counts at 33 winter survey sites by species.



Freshwater Fisheries Program

Regulations

Following recommendations from the Recreational Fisheries Advisory Committee a number of regulatory changes were made in 2009. The daily catch limit of trout was reduced to 8 trout (either brook or rainbow). The possession limit was also reduced to 8 trout in total.

Anglers were not permitted to retain Atlantic salmon in 2009. No tags were issued. All angling for Atlantic salmon was by barbless fly, catch and release only.

The east branch of the Tryon River was closed to angling in 2009. The Dunk River remained open but was limited to catch and release only, with a barbless lure or fly. These conservation measures were implemented following fish kills in 2007.

Angling Licences

In an effort to increase participation, new licensing options were made available in 2009.

A new five-day family fishing license allowed the spouse and dependants to fish for a period of five days. This license was available after May 1st and the fee was $5.00 plus a $5.00 Wildlife Conservation Fund fee. The courtesy licence was extended to those ages 16-18. In addition, people age 60 and over were also eligible for this licence. The spouse of the licence holder was no longer included with this licence.

The resident and non-resident licenses were combined into one angling license. The fee was $10 plus a $20 Wildlife Conservation Fund. Anglers were able to purchase their license online in 2009.

Recreational Fisheries Policy

In 2008 the Recreational Fisheries Advisory Committee was requested to solicit public input into the development of a Recreational Fisheries Policy. A discussion paper was prepared to provide background on six core issues: angler recruitment, access, habitat restoration and land use, stocking, regulations and future threats.

A report summarizing the group's findings titled "Fostering a Quality and Sustainable Angling Experience in Prince Edward Island" was received. Government has reviewed the recommendations and a draft policy has been prepared. It is anticipated that the first Recreational Fisheries Policy for Prince Edward Island will be released in 2011.

Monitoring and Assessment

All index rivers (Mill River, Little Trout River [Richmond], Wilmot River, West River, Morell River and Souris River) were electrofished to determine salmonid populations for long-term monitoring.

Angler creel surveys were carried out for opening day on the Morell River (April 15). Sixty-two anglers were surveyed and a total of 175 brook trout were measured. The average length of brook trout was > 29 cm, up slightly from 2008.

The division continued to collect fish in selected areas for analysis of mercury as part of a joint initiative with the New England Governors and Eastern Canadian Premiers Mercury Task Force. Fish were sampled from O'Keefe's Lake, with testing completed at Environment Canada's Environmental Quality Section Laboratory in Moncton, New Brunswick. The health advisory regarding consumption of fish from O'Keefe's Lake remains in effect. The division will continue to monitor mercury levels in fish from selected areas of Prince Edward Island on an annual basis.

Fish were also collected in support of a pesticide monitoring program in support of the Water Management Division.

Fish Stocking

Following the draft provincial stocking policy, approximately 30,000 brook trout were stocked in various locations throughout the island. There were no reported fish kills in 2008 or 2009

therefore the brook trout previously set aside for stock rehabilitation were distributed to their watersheds of origin.

Atlantic salmon parr were stocked into the Morell River, Dunk River and Souris River. The Souris River project was a cooperative research initiative with the Souris and Area Branch of the PEI Wildlife Federation, the Atlantic Salmon Federation and UPEI, to study habitat improvement and reduced competition from non-native rainbow trout to facilitate the re-introduction of Atlantic salmon to this watershed.

In 2009, the Department of Environment, Energy and Forestry committed long term support to the salmonid enhancement program. Sixty-five thousand dollars was committed per year. Additional funds were secured from the Wildlife Conservation Fund.

Fish Kill Investigation
No pesticide related fish kills were discovered in 2009. Several reports of dead gaspereaux and smelts occurred which are considered natural mortality.

Angler Participation
The Family Fishing Weekend was once again held during the long weekend in May. In support of this venture, no angling license was required to fish from May 15 to 18, 2009.

Impoundment Management
Management activities in 2009 focused on stabilizing the site at Scales Pond after the earthen dyke breached under extreme conditions on April 4. In addition to stabilizing the exposed portions of the dyke, debris deposited on the public trail downstream from the site was removed and the trail stabilized. Major excavation projects undertaken by local community groups at Leards Pond in Coleman, and Rackams Pond in Wheatley River were also supported in 2009. The province also entered into a Management Agreement Program entitled "Wetlands for Tomorrow" with Ducks Unlimited Canada.

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